

Comparisons of Job Characteristics

Focus Occupation: **Electricians (47-2111)**

Associated Occupation: **Avionics Technicians (49-2091)**

[Compare Knowledge](#)

[Compare Skills](#)

[Compare Abilities](#)

[Compare Detailed Work Activities](#)

[Compare Tools and Technologies](#)

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge

Similarity of Focus Occupation to Associated Occupation: 64

Focus Occupation: Electricians (47-2111)

Associated Occupation: Avionics Technicians (49-2091)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation
Computers and Electronics	8.4	14.7	10.1	<< Extensive education and/or training may be required
Engineering and Technology	5.7	13.0	11.8	< Expanded education and/or training may be required
Mathematics	9.2	12.3	14.5	> Current knowledge level is likely sufficient
Mechanical	6.8	9.6	16.5	>> Current knowledge level is likely more than sufficient
Production and Processing	6.0	9.5	5.8	<< Extensive education and/or training may be required
Telecommunications	3.9	6.3	10.4	>> Current knowledge level is likely more than sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 79

Focus Occupation: Electricians (47-2111)

Associated Occupation: Avionics Technicians (49-2091)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation
Repairing	3.4	13.9	11.6	< A higher skill level may be required
Troubleshooting	4.5	13.8	12.3	< A higher skill level may be required
Equipment Maintenance	3.5	13.5	10.3	<< Extensive development of skills in this area may be required
Quality Control Analysis	5.9	11.8	11.0	0 Current skill level may be sufficient
Operation Monitoring	6.6	11.5	10.5	0 Current skill level may be sufficient
Equipment Selection	3.3	9.1	8.4	0 Current skill level may be sufficient

Installation	1.7	5.4	9.4	>>	Skill level is likely more than sufficient
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The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities		Similarity of Focus Occupation to Associated Occupation: 84				
Focus Occupation: Electricians (47-2111)						
Associated Occupation: Avionics Technicians (49-2091)						
Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation		
Problem Sensitivity	11.1	13.0	12.7	0	Current ability level may be sufficient	
Information Ordering	9.9	11.8	11.6	0	Current ability level may be sufficient	
Finger Dexterity	7.6	11.5	11.8	0	Current ability level may be sufficient	
Visualization	7.5	11.0	12.2	>	Current ability level is likely sufficient	
Manual Dexterity	6.5	10.2	11.6	>	Current ability level is likely sufficient	
Control Precision	6.6	9.5	9.5	0	Current ability level may be sufficient	
Visual Color Discrimination	6.4	8.5	12.8	>>	Current ability level is likely more than sufficient	

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Activities that Both Occupations Have in Common		Similarity of Focus Occupation to Associated Occupation: 91
Focus Occupation: Electricians (47-2111) Associated Occupation: Avionics Technicians (49-2091)		
Work Activities	Exclusivity of Activity	
Analyze operation of malfunctioning electrical or electronic equipment	68	
Construct or fabricate electrical parts or fixtures	92	
Distinguish colors	44	
Fabricate, assemble, or disassemble manufactured products by hand	11	
Install electrical fixtures or components	71	
Install electronic power, communication, control, or security equipment or systems	76	
Install or replace meters, regulators, or related measuring or control devices	66	
Install/connect electrical equipment to power circuit	57	
Perform safety inspections in industrial, manufacturing or repair setting	32	
Read blueprints	10	
Read tape measure	41	
Read technical drawings	7	
Repair electronic components, equipment, or systems	74	
Repair or adjust measuring or control devices	71	
Repair or replace electrical wiring, circuits, fixtures, or equipment	49	
Replace electronic components	63	

Solder electrical or electronic connections or components	55
Test electrical/electronic wiring, equipment, systems or fixtures	54
Test electronic or electrical circuit connections	66
Understand service or repair manuals	40
Use electrical or electronic test devices or equipment	40
Use hand or power tools	2
Use oscilloscopes in electronics repair	77
Use soldering equipment	44
Use voltmeter, ammeter, or ohmmeter	52

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus
Occupation to Associated
Occupation: 85

Focus Occupation: Electricians (47-2111)
Associated Occupation: Avionics Technicians (49-2091)

Tools and Technologies	Exclusivity
Computers	1
Content authoring and editing software	1
Cutting and crimping and punching tools	3
Data management and query software	1
Electrical measuring and testing equipment	7
Fastener setting tools	12
Forming tools	2
Holding and clamping tools	3
Industry specific software	1
Ladders and scaffolding	6
Length and thickness and distance measuring instruments	2
Lifting equipment and accessories	3
Light and wave generating and measuring equipment	4
Measuring and layout tools	3
Power tools	2
Respiratory protection	6
Soldering and brazing and welding machinery and supplies	6
Viewing and observing instruments and accessories	4
Vision protection and accessories	3
Wrenches and drivers	2

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.